FEE TRANSMITTAL
For FY 2005

JAN 24 2005

MAIL STOP Response

☐ Applicant claims small entity status. See 37 CFR 1.27

Complete If Known	
Application No.	09/849,002
Filing Date	May 4, 2001
First Named Inventor	David J. Leach, Jr., et al.
Examiner Name	R. W. Wilson
Art Unit	2661
Attorney Docket No.	56162.000562

Total Amount Of Payment	($)	$120.00

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (identify): _____

☒ Deposit Account Deposit Account Number **50-0206** Deposit Account Name : **Hunton & Williams LLP**

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below. ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments.

FEE CALCULATION

1. BASIC FILING, SEARCH AND EXAMINATION FEES

Application Type	FILING FEES Fee($)	Small Entity Fee ($)	SEARCH FEES Fee($)	Small Entity Fee ($)	EXAMINATION FEES Fee($)	Small Entity Fee ($)	Fees Paid ($)
Utility	300.00	150.00	500.00	250.00	200.00	100.00	
Design	200.00	100.00	100.00	50.00	130.00	65.00	
Plant	200.00	100.00	300.00	150.00	160.00	80.00	
Reissue	300.00	150.00	500.00	250.00	600.00	300.00	
Provisional	200.00	100.00	0.00	0.00	0.00	0.00	

2. EXCESS CLAIMS FEES

For	Number Present	Highest Number Paid For	Extra	Fees ($)	Small Entity Fee ($)	Fees Paid ($)
Total Claims	39	39	0 x	50.00	25.00	0
Independent Claims	4	4	0 x	200.00	100.00	0
Multiple Dependent Claim				360.00	180.00	0
Total Excess Claims Fees						0

3. APPLICATION SIZE FEE (if the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	No. of Each Additional 50 or Fraction Thereof	Fees ($)	Small Entity Fee ($)	Fees Paid ($)
_____ - 100 =	_____ / 50 =	_____ (round up to a whole number) x	250.00	125.00	

4. OTHER FEE(S)

☐ Non-English Specification (no small entity discount)

☐ Surcharge - late filing fee or oath

☐ Surcharge - late provisional filing fee or cover sheet

☐ _____ Month Extension of Time

☐ Submission of Information Disclosure Statement

☐ Notice of Appeal

☐ Request for Oral Hearing

☐ Filing Brief in Support of Appeal

☐ Filing Submission After Final Rejection

☐ Utility Issue Fee (or Reissue) (including Publication Fee, if necessary)

☐ Design Issue Fee

☐ Plant Issue Fee

☒ Petition to Commissioner Extension of Time 120.00

☐ Petition to Revive (Unavoidable)

☐ Petition to Revive (Unintentional)

☐ Petitions Related to Provisional Applications

☐ Recording Each Patent Assignment Per Property

☐ Other (specify) _____

SUBMITTED BY

Signature		Registration No.	46,743 41,495	Telephone	703-714-7554
Typed or Printed Name	Phillip D. Mancini for Kevin T. Duncan			Date	January 18, 2005

56162.000562 FAIRFAX 250710v1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number	:	09/849,002	Confirmation No.:	8971
Applicant	:	David J. Leach, Jr. et al.		
Filed	:	May 4, 2001		
Title	:	System and Method of Repetitive Transmission of Frames for Frame-Based Communications		
TC/Art Unit	:	2661		
Examiner:	:	Robert W. Wilson		

Docket No.	:	56162.000562
Customer No.	:	**21967**

MAIL STOP RESPONSE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR RECONSIDERATION

Sir:

In reply to the September 22, 2004 Office Action, the period for response being extended by 1 month to January 23, 2005 by the attached Petition for Extension of Time, reconsideration is respectfully requested. Claims 1-39 remain pending in this application.

I.   Allowable Subject Matter

Applicants appreciate the Examiner's indication that claims 11-21 and 31-39 are allowed and that claims 2-4, 6-9, 23, 27, 29 and 30 would be allowable if rewritten to incorporate the feature of the independent claim and any intervening claims. However, for the reasons set forth herein, Applicants respectfully submits that all pending claims are patentable.

II.   Informal Matters

The Examiner has objected to the claim term "suppressing" as it appears in claim 10 and has recommended that it be replaced with "suppress." After reviewing the claims, Applicants have decided not to adopt the Examiner's recommended replacement. It is proper to use active "ing" form of verbs when reciting method claim steps. In claim 10, the active step of suppressing refers to returning a completion status for a persistent frame that was successfully transmitted and successfully re-enqueed to the queue. The claim step is suppressing the step of returning

III.   Rejections under 35 U.S.C. §103(a)

Claims 1 and 5 stand rejected under 35 U.S.C. §103(a) over U.S. Patent 6,400,724 to Yao *et al.* (hereinafter the "Yao patent"). Applicants respectfully traverse the rejection. In particular, Applicants submit that the Yao patent fails to disclose or suggest a method of repetitive transmission of frames by a MAC entity in a communications system comprising accepting frames intended for transmission, enqueuing the accepted frames into a queue, dequeuing a frame from the queue, transmitting the dequeued frame and <u>re-enqueuing the frame into the queue if the frame is a persistent frame</u>, as recited in claims 1 and 5.

In contrast to the claimed invention, the Yao patent describes a method for increasing the probability of successful data frame transmission from a transmitter to a receiver. In the described method, when a data frame is generated by a processor, it is stored in a transmit queue and a copy of the data frame is stored in a secondary queue. An elapsed time device tracks the elapsed time that the data frame copy has been stored in the secondary queue. When no data

frames are generated by the processor, data frame copies from the secondary queue are placed
into the transmit queue, thereby increasing the redundancy of transmitted data frames and thus
the probability of successful transmission to the receiver. The Yao patent fails to provide
disclosure or even suggestion for the claim feature of re-enqueuing the frame if the frame is a
persistent frame. In fact, in the Yao patent, <u>frames are treated indiscriminately</u> — that is no
distinction is made between persistent frames and non-persistent frames. The Examiner states
that Applicants have broadly claimed persistent frame and further that applicants define a
persistent frame as a frame that is effected by retry strategy per pg. 31 lines 10-16 of the
specification. Therefore, the Examiner has interpreted a frame that needs to be retransmitted or
effected by a retry strategy as a persistent frame. Applicants strongly disagree with this
interpretation of the specification of this application. Page 31 merely describes the contents of
the frame descriptor as including a persistence field as well as a retry strategy field. These fields
are independent of one another. Figure 4 illustrates the various fields that make up the frame
descriptor 403 including a frame lifetime field, a Q Mark field, a persistence field and a retry
strategy field. At page 35, the paragraph beginning at line 10 Applicants have defined
persistence frames. *"As shown, persistent frames, such as a first frame F1, are indicated by a*
persistent indicator "P", where persistent frames are indicated in any one of several ways. In
one embodiment, the frame descriptor of a frame has its PRST field programmed as a persistent
frame. In another embodiment, a persistent frame bit or the like programmed into the
corresponding transmit queue 305 by the TX frame manager 303 when the frame is enqueued.
In another embodiment, the frame is considered persistent when enqueued into a persistent
queue, such as the queue QP or any transmit queue 305 that is programmed as persistent. In
another embodiment, any frame of a certain frame type may automatically be persistent frames,

such as polling frames or the like." Thus, several different embodiments are disclosed for designating frames as persistent frames. However, each share a distinguishing feature over the frame queueing scheme of the Yao patent — that is that persistent frames are treated differently than other frames. Therefore, Applicants respectfully submit that claims 1 and 5 are patentable over the Yao patent on at least this basis. Accordingly, Applicants respectfully request that the rejection of claims 1 and 5 over the Yao patent be withdrawn.

Claims 22, 24-26 and 28 stand rejected under 35 U.S.C. §103(a) over U.S. Patent 6,754,197 to Davidson *et al.* (hereinafter "the Davidson patent"). Applicants respectfully traverse the rejection. In particular, Applicants submit that the Davidson patent fails to disclose or suggest a MAC device that supports persistent frame transmission comprising a queue that stores frames for transmission, a transmission scheduler, coupled to the queue, that dequeues frames from the queue for transmission, persistent logic, coupled to the transmission scheduler, that detects that the dequeued frame is persistent and that asserts a persistent signal indicative thereof, and the transmission scheduler, receiving the persistent signal, being configured to forward the frame to be requeued into the queue, as recited in independent claim 22.

In contrast to the claimed invention, the Davidson patent describes a system and method to provided ordered transmission of data packets to multiple destinations. A transmission device includes a transmitter, a data packet ordering unit, a state table, and a transmit management interface such as a hardware/software unit. The state table stores a transmit block status of each destination. The transmit management interface determines whether to transmit a data packet targeted to a particular destination or to block transmission of data packets to the particular destination by examining the transmit block status of the particular destination from the state table. However, the Davidson patent does not disclose or suggest persistent logic, coupled to the

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transmission scheduler, that detects that the dequeued frame is persistent and that asserts a persistent signal indicative thereof, and the transmission scheduler, receiving the persistent signal, being configured to forward the frame to be requeued into the queue. As with the rejection over the Yao patent, the Examiner has based the rejection on the incorrect assumption that Applicants have defined a persistent frame transmission as a frame that is effected by retry strategy per p. 31 of the specification. The Examiner interprets a frame that is being retransmitted because an ACK has not been received as a persistent frame transmission. As noted above in the traversal of the rejection based on the Yao patent, Applicants submit that the section relied upon by the Examiner does not define a persistent frame as one effected by a retry strategy. Therefore, Applicants submit that claims 22, 24-26 and 28 are patentable over the Davidson patent for at least this reasons. Accordingly, Applicants respectfully request that the rejection of claims 22, 24-26 and 28 over the Davidson patent be withdrawn.
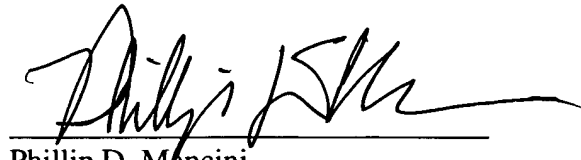
IV. Conclusion

Applicants submit that all pending claims in this application are in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited. Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

In the event any variance exists between the amount authorized to be charge to the Deposit Account and the Patent Office charges, please charge or credit any difference to the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS LLP

By: _____
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Dated: Monday, January 24, 2005

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